



Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at <http://about.jstor.org/participate-jstor/individuals/early-journal-content>.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

THE FORMS

OF THE

GREEK SUBSTANTIVE VERB.

I PROPOSE to occupy the attention of the Society, for a few minutes only, with some account of the substantive verb in Greek—the forms of the verb *εἰμι*, *I am*,—as illustrated by a comparison with the Sanskrit and other cognate languages. The subject affords a remarkable specimen of the advantages resulting to classical philology from the wider Indo-European philology of recent times. Taken by themselves, the forms of the Greek *εἰμι* seem a mass of confused anomalies: it is only when we extend our view to the corresponding forms of kindred languages that we become aware of their essential regularity. We discover then that this verb was originally subject to the general system of verbal inflexion; though from the frequency of its use it has been more than other verbs disguised by the occurrence of euphonic changes. Yet these euphonic changes are such as prevail more or less extensively in the formation of the language; and even while separating the forms of this verb, in appearance at least, from those of other verbs, should hardly be regarded as anomalies. Such forms, though peculiar, are not lawless (anomalous): on the contrary they are fashioned under the operation of laws which have determined the character of the language.

The SUBSTANTIVE VERB of the Indo-European languages has for its base in the Sansk. the syllable *as*, in Gr. and Lat. *es*, in Teut. *is*. This appears most distinctly in the 3d pers. sing. pres. ind., Sansk. *asti*, Gr. *ἐστί*, Lat. *est*, Germ. *ist*, Eng. *is*. We see here a regular vowel-progression from the broad open *a* to the closer *e*, and from this to the short sharp *i*, the closest of all vowel-sounds.

The Sansk. *as* in its inflexion preserves almost everywhere the consonant *s*: the vowel *a* on the other hand is in many of the forms rejected. In both these points the Sanskrit is followed closely by the Latin; which, however, by a special law of euphony, changes the *s* between two vowels into an *r*; as in *eram*, *ero* for *esam*, *eso*. In Greek, on the contrary, the vowel is more persistent than the consonant. The *ε* of the base presents itself in nearly all the forms: only in the subjunctive and the participle does it disappear, and in these not universally. But the *σ*, which in Greek shows itself in many ways as a weak and fluctuating letter, has in this verb vanished altogether from a large proportion of the forms. As an illustration of these remarks we may take the optative, which answers to the present subjunctive in Latin, and the potential in Sanskrit. Here we have in Sansk. *syām* for *asyām* (*a* rejected): old Lat. *siem* for *esiem* (*e* rejected): Gr. *εῖην* for *εσιην* (*σ* rejected, as usual between two vowels).

If now we take up the PRESENT INDICATIVE of the Gr. *εἰμι*, we find the base *εσ* unchanged in the 3d pers. sing. *ἐστί*, the 2d and 3d pers. du. *ἐστόν*, the 1st and 2d pers. plur. *ἐσμεν* (Dor. *ἐσμές*), *ἐστέ*, and probably also in the Epic 2d pers. sing. *ἐσσι*. The 2d pers. sing. in Sanskrit is *asi* for *assi*, one *s* being discarded: to this would correspond in Greek a form like *εσι*; and the language seems in fact to have formed its *εἶς* from an earlier *εσι*, in the same manner as *τέτις* from a primitive *τυτεσι*. From *εἶς* has come the common *εἷ* by the breaking down of *σ*. Possibly the Epic *ἐσσι* instead of being = *εσ* + *σι*, may have been made from this supposed *εσι* by the favorite Epic repetition of the consonant. In the 1st pers. plur. (*ἐσμεν*) the Ionic dialect has dropped the *σ*, and lengthened the preceding vowel; whence *εἰμέν* for *ἐσμεν*. A similar change in the 1st pers. sing. has given *εἰμι* for the original but obsolete *ἐσμι*, Sansk. *asmī*. Here all the dialects of Greek concur in giving up the *σ*, but differ as to the mode of compensation; the Aeolic doubling the succeeding liquid, thus *ἐμμι*; the stricter Doric lengthening *ε* to *η*, thus *ἦμι*; while the other dialects have *ει*, thus *εἰμι*. There remains now only the 3d pers. plur. where a comparison of the Sansk. *santi* and the Lat. *sunt* suggests a primitive *εσαντι*, consisting of the base *εσ*, the personal ending *ντι* and a *α*

union-vowel α . But in Ionic and Attic Greek, the letter τ of the ending $\nu\tau\iota$ is everywhere corrupted to a sibilant σ , before which ν falls away and is compensated by the prolongation of the preceding vowel. This would change $\varepsilon\sigma\alpha\nu\tau\iota$ to $\varepsilon\sigma\alpha\sigma\iota$, and by the disappearance of the radical σ , to $\xi\alpha\sigma\iota$. " $\xi\alpha\sigma\iota$ " is often found in the Ionic dialect: from it, by contraction of the vowels $\varepsilon\alpha$, comes $\varepsilon\iota\sigma\iota$ the prevailing form. In the assumed original form $\varepsilon\sigma\alpha\nu\tau\iota$, the α , as already intimated, is not a significant element, like the base $\varepsilon\sigma$, and the personal ending $\nu\tau\iota$: it is a mere euphonic expedient, a necessity of pronunciation, without which the combination of the base and the personal ending would be unpronounceable. This connecting vowel appears under the same form, as a in the Sansk. *santi*; as u in the Lat. *sunt*; as i in the Germ. *sind*. There is reason, however, to believe that the Greeks, at least in some dialects, resorted to a different means for relieving the difficulty presented by the combination $\varepsilon\sigma + \nu\tau\iota$: that, instead of inserting a brief union-vowel, they sometimes sacrificed the σ of the base: this would give $\varepsilon\nu\tau\iota$, the prevailing 3d pers. plur. in the Doric dialect. Indeed the common $\varepsilon\iota\sigma\iota$ might be made from $\varepsilon\nu\tau\iota$ by the usual change of τ to σ , which would involve the omission of the ν and the lengthening of ε to $\varepsilon\iota$. It seems more probable, however, that $\varepsilon\iota\sigma\iota$ is made from $\varepsilon\sigma\alpha\nu\tau\iota$ through $\xi\alpha\sigma\iota$, in the manner just described; more especially, as we find even in Doric Greek traces of the use of a connecting vowel. Thus in the form $\xi\sigma\tau\iota$, which occurs once in Archimedes, and in $\xi\omega\tau\iota$, which is found twice at least, the σ and ω are obviously connecting vowels, which correspond well with the u of the Lat. *sunt*, and may countenance the belief that the Doric Greek originally, like the Sanskrit, Latin, German, etc., employed a connecting vowel in this place.

We find $\varepsilon\nu\tau\iota$ laid down also as a Doric form of the 3d pers. sing. = $\varepsilon\sigma\tau\iota$. Were this form genuine, it would present a veritable anomaly, a capricious deviation from the laws of the language. But Ahrens has shown in a satisfactory manner, that this $\varepsilon\nu\tau\iota$ for $\varepsilon\sigma\tau\iota$, a form philologically inexplicable, is pseudo-Doric, and founded probably on a confusion of singular and plural in the vulgar idiom of later Dorians.

Passing on to the SUBJUNCTIVE MODE, we might expect to find the forms $\varepsilon\sigma\omega$, $\varepsilon\sigma\eta\varsigma$, $\varepsilon\sigma\eta$, etc., i. e. the base $\varepsilon\sigma$ with the

proper endings of the subjunctive. Here, however, the σ has fallen away between the vowels, leaving $\tilde{\epsilon}\omega$, $\tilde{\epsilon}\eta\varsigma$, $\tilde{\epsilon}\eta$, etc., dialectic forms, whence by contraction $\tilde{\omega}$, $\tilde{\eta}\varsigma$, $\tilde{\eta}$, etc., the common forms in Attic Greek. As the Greek subjunctive is a formation peculiar to the Greek, or paralleled only by certain traces of a similar formation in the earlier Sanskrit of the Vedas, no illustration can be given here from other languages.

As for the OPTATIVE, we have already pointed out the relation of the Gr. $\epsilon\tilde{\iota}\eta\nu$ to an earlier $\epsilon\sigma\upsilon\eta\nu$, proved by the Sansk. *syām*, Old Lat. *siem*, where the Greek has lost the consonant of the base, while the Sanskrit and the Latin have given up the vowel. This optative is formed by annexing the letters $\upsilon\eta$, Sansk. $\gamma\hat{a}$, directly to the base; like $\delta\omicron\iota\eta\nu$ from $\delta\omicron$, $\theta\epsilon\iota\eta\nu$ from $\theta\epsilon$. The Sanskrit uses this formation in a considerable number of bases which end in a consonant. In Greek it is confined to bases ending in a vowel, i. e. pure bases, the only exception being this very verb $\epsilon\sigma$, which, however, by giving up the σ , presents in the optative the appearance of a pure verb. If the base $\epsilon\sigma$ followed the analogy of other bases ending in a consonant, its optative would be $\epsilon\sigma\omicron\iota\mu\iota$, $\epsilon\sigma\omicron\iota\varsigma$, $\epsilon\sigma\omicron\iota$, etc., or by dropping σ , $\epsilon\omicron\iota\mu\iota$, $\tilde{\epsilon}\omicron\iota\varsigma$, $\tilde{\epsilon}\omicron\iota$, and the two last mentioned forms do in fact occur in Homer.

In the IMPERATIVE, 2d pers. sing. $\tilde{\iota}\sigma\theta\iota$, $\theta\iota$ is the personal ending, and the vowel of the base has passed by a not uncommon change from ϵ to ι : compare $\pi\iota\tau\nu\omega$ from $\pi\epsilon\tau$. In this instance the Sanskrit stands in disadvantageous comparison with the Greek, the Sansk. $\hat{e}d\acute{i}$ having lost the consonant of the base, while the Greek, influenced perhaps by a partiality for the combination $\sigma\theta$, has retained it.

The Homeric $\tilde{\epsilon}\sigma\sigma\omicron$ has the ending of the middle, just as $\tilde{\eta}\mu\eta\nu$ with the middle ending is sometimes found in place of the active $\tilde{\eta}\nu$. The future also $\tilde{\epsilon}\sigma\omicron\mu\alpha\iota$ takes middle endings, though in the Lat. *ero* for *eso* it has the endings of the active. When we consider the meaning of this verb, terminating, as it does, upon the subject, we shall not be surprised at seeing it assume the subjective forms of the middle voice.

The 3d pers. plur. of the imperative in Sanskrit is *santu* for *asantu*. The corresponding form in Greek would be $\epsilon\sigma\omicron\upsilon\tau\omega(\nu)$, or, with the omission of the σ , $\tilde{\epsilon}\acute{o}\nu\tau\omega(\nu)$, a common

Doric form. Hence also *ῥντων* by an abandonment of *ε*, as in the participle.

The INFINITIVE *εἶναι* is without doubt related to an original *εσσαι*, as *εἶμι* to *εσμι*; but as the infinitive in *ν* or *ναι* is unknown to the common Sanskrit, it cannot be illustrated from that language. The base *εσ* combined with the dialectic endings *μεναι* or *μεν* would give *εσμεναι* or *εσμεν*; but here again we find the same changes as in the pres. ind. 1st pers. sing.; whence arise the forms *ἔμμεναι*, *ἤμεναι*, *εἰμεναι*, *ἔμμεν*, *ἤμεν*, *εἰμεν*. The Homeric *ἔμμεναι*, *ἔμμεν*, present no compensation for the vanished *σ*.

The Sanskrit PARTICIPLE is *sat*, acc. sing. masc. *santam*, for *asat*, *asantam*: Lat. *sens*, *sentis*, seen in the compounds *praesens*, *absens*. These forms indicate an original Greek participle *εσων*, *εσοντος*. But the *σ* has fallen away, according to the general analogy, and left *έών*, *έόντος*, the prevailing forms in dialectic Greek. Eventually, however, the short *ε* disappeared likewise, leaving the common *ών*, *όντος*, which in form are mere endings without a vestige of the base. It is a case much like the modern Greek adverb *δέν* *not*, from the ancient *οὐδέν*; that is, the word *not* with the negative part wholly omitted.

The Doric forms *ῥντος*, *ῥντι*, etc., connect themselves with the ind. 3d pers. plur. *ῥντι*, and are to be accounted for in the same manner, as resulting from an attempt to dispense with the connecting vowel, to connect the base *εσ* directly with the participle-ending *ντι*, which occasioned of necessity a sacrifice of the consonant *σ*. Hence too the Lat. *ens*; which, however, is not a native form of the Latin language, but borrowed from the Dorian philosophers of Magna Graecia.

In the IMPERFECT the base receives an augment and becomes *ησ*, Sansk. *ás*. The augment, however, is often rejected from this verb as well as from others, in the dialects, and especially in the Ionic. The augmented *ησ* appears most distinctly in the Doric 3d pers. sing. *ἦς*, where it stands alone, without connecting vowel or personal ending. It appears also in the 3d pers. plur. *ἦσαν*, Ion. *ἔσαν*, Sansk. *ásan* for *ásant*, Lat. *erant* for *esant*; likewise in the forms *ἦστον*, *ἦστυν*, *ἦστε*, Sansk. *ástam*, *ástām*, *ásta*, which in Greek are

generally softened by the omission of the σ , as $\tilde{\eta}\tau\omicron\nu$, $\tilde{\eta}\tau\eta\nu$, $\tilde{\eta}\tau\epsilon$. In the 1st pers. plur. $\tilde{\eta}\mu\epsilon\nu$, the σ is universally rejected.

In the singular the Sansk. $\acute{a}sam$, $\acute{á}sís$, $\acute{á}sít$, the Lat. *eram*, *eras*, *erat*, i. e. *esam*, *esas*, *esat*, point to a Greek inflexion $\eta\sigma\alpha(\nu)$, $\eta\sigma\alpha\varsigma$, $\eta\sigma\epsilon(\tau)$. Here, however, the σ which the Latin changes into r , has in Greek fallen away in accordance with the general analogy. Hence $\tilde{\eta}\alpha$ or $\tilde{\epsilon}\alpha$, $\tilde{\eta}\alpha\varsigma$, $\tilde{\eta}\epsilon(\nu)$, Epic and Ionic forms, which merely drop the σ , retaining the vowel by which it was originally united with the personal ending. The Ion. $\tilde{\epsilon}\omicron\nu$ for $\epsilon\sigma\omicron\nu$ presents the \omicron , the usual connecting vowel of the imperfect. More commonly, however, after the omission of the σ , the short connecting vowel is absorbed in the preceding long η : whence $\tilde{\eta}\nu$ or $\tilde{\eta}$, $\tilde{\eta}\varsigma$ or $\tilde{\eta}\sigma\theta\alpha$, $\tilde{\eta}$ or $\tilde{\eta}\nu$, the common forms of the singular. (The Epic forms $\tilde{\epsilon}\eta\sigma\theta\alpha$, $\tilde{\epsilon}\eta\nu$, $\tilde{\eta}\eta\nu$ are only instances of the tendency, so general in Epic Greek, to repeat the long vowel-sounds.) Perhaps, however, it might be better to consider these forms $\tilde{\eta}\nu$, $\tilde{\eta}\varsigma$, $\tilde{\eta}$ as the result of an effort to make the singular without a connecting vowel by attaching the endings ν , σ , τ , directly to the base $\tau\sigma$, which could only be accomplished by the rejection of the σ .

The FUTURE of this verb is not found in Sanskrit in a separate state. In Greek and Latin, where it is found, it has no proper tense-sign, but is in form a present, differing from the present of this verb by the insertion of a connecting vowel, and having the use of a future. In this absence of a tense-sign, $\tilde{\epsilon}\sigma\omicron\mu\alpha\iota$, *I will be*, may be compared with such forms as $\tilde{\epsilon}\delta\omicron\mu\alpha\iota$, *I will eat*, and $\pi\acute{\iota}\omicron\mu\alpha\iota$, *I will drink*. The usual characteristic of the Greek future is σ , originally $\sigma\iota$ or $\sigma\epsilon$, which is now generally regarded as containing the root of the substantive verb. We can easily understand, then, why it should not be used with the future of $\epsilon\iota\mu\acute{\iota}$, as that would involve a repetition of the root, a composition of the word with itself. Yet the tense-sign is undeniably present in the Dor. $\tilde{\epsilon}\sigma\sigma\omicron\upsilon\mu\alpha\iota$ (= $\epsilon\sigma\sigma\epsilon\omicron\mu\alpha\iota$ or $\epsilon\sigma\sigma\iota\omicron\mu\alpha\iota$), and probably so in the Epic $\tilde{\epsilon}\sigma\sigma\omicron\mu\alpha\iota$, where one σ may belong to the base, and the other to the tense-sign, and from which the common $\tilde{\epsilon}\sigma\omicron\mu\alpha\iota$ is perhaps derived by neglecting the repetition of the consonant.

The middle endings of this future, as well as of the imperf. $\tilde{\eta}\mu\eta\nu$, and the imper. $\tilde{\epsilon}\sigma\sigma\omicron$, have been already noticed and explained.